

Manual Charpy Impact Pendulum



Brief Introduction:

XBZ-300 Manual Charpy impact testing machine is used to measure the impact resistance of metal materials under dynamic load, so as to judge the properties of materials under dynamic load.

The absorption work of the sample is obtained by using the way that the difference between the potential energy before the impact of the pendulum and the potential energy remaining after the impact is displayed on the dial.

The maximum impact energy is 300J, with 150J pendulum attached, the section of the sample used is (10*10) mm. This machine has a large impact energy, suitable for impact toughness of large ferrous metals, such as steel and its alloy.

The main body of the machine is made of cast steel, which makes it rigid and stable during the whole test process, strong impact resistance, not easy to be deformed, accurate test results and long service life. Manual operation, no power supply, low cost, suitable for the test of small units, or school teaching use, is conducive to the operator more skilled, solid grasp of the relevant technology.

Development and production in accordance with national standards GB/T 3808-2002<Inspection of pendulum impact testing machine>.Conduct impact tests on metal materials in accordance with national standards GB/T 229-2007 <Charpy pendulum test method for metallic materials>,and conform to JJG 145-2007 <verification regulations of pendulum impact testing machine>.If the structural form is changed and relevant parts are replaced, the requirements of ASTM E23, EN 10045, ISO 148, ISO 83 and other international standards can be met simultaneously.

Operating conditions:

1. Room temperature is 20°C ±5°C range.
2. Relative humidity is not more than 85%.
3. Surrounding no corrosive media, no vibration, no strong electromagnetic interference in the environment.

4. It shall be installed on the concrete foundation with the thickness of not less than 200mm or fixed on the foundation with the thickness of more than 1400Kg.
5. The level of datum level installed on the machine base shall be adjusted to 2/1000.

Standard Delivery:

300J mainframe	1 set
150J/300J Pendulum hammer	Each one
Span alignment plate	1
Sample centralizer	1
Stripping attachment	1(In place with)
Foundation bolt	4

Technical Data:

Impact energy	300J /150J	
Dial scale range and resolution	Energy range: 0-300J /0-150J	
	Resolution: 2J /1J	
Moment of pendulum	0-300J	M=160.7695N.m
	0-150J	M=80.3848N.m
Prehoisting Angle of pendulum	135°	
Distance between the center of rotation of the pendulum axis and the impact point (sample center)	800mm	
Impact Speed	≈5.0m/s	
Sample bearing span	40mm	
The base jaw is rounded	R(1.0~1.5)mm	1mm is special order
Radius of blade curvature	R(2.0~2.5)mm	8mm is special order
Inclination of support surface of sample bearing	11°	
Angle of impact blade	30°	
Impact blade thickness	16mm	
The sample size	10×10 (7.5 or 5) × 55 mm	
Overall dimensions of main engine (L*W*H)	(700×510×1350) mm	
Weight	320Kg	
Power Supply	AC380V/50HZ,400W	